

## Correlation of Ontario Mathematics 2005 Curriculum to *Addison Wesley Math Makes Sense 1*

### Number Sense and Numeration

Overall Expectations

*By the end of Grade 1, students will:*

- read, represent, compare, and order whole numbers to 50, and use concrete materials to investigate fractions and money amounts;
- demonstrate an understanding of magnitude by counting forward to 100 and backwards from 20;
- solve problems involving the addition and subtraction of single-digit whole numbers, using a variety of strategies.

Students will:

<b>Specific Expectations</b>	<b><i>Addison Wesley Mathematics Makes Sense Grade 1, Lessons:</i></b>
<i>Quantity Relationships</i> represent, compare, and order whole numbers to 50, using a variety of tools (e.g., connecting cubes, ten frames, base ten materials, number lines, hundreds charts) and contexts (e.g., real-life experiences, number stories);	Unit 2 L1, L3, L4, L5, L6, L7, L8 (number to 20) Unit 7 L1, L2, L3 (to 50) Unit 10 L1, L2, L3 (to 100)
read and print in words whole numbers to ten, using meaningful contexts (e.g., story-books, posters);	Unit 2 L1
demonstrate, using concrete materials, the concept of conservation of number (e.g., 5 counters represent the number 5, regardless whether they are close together or far apart);	Unit 2 L3, L4, L8
relate numbers to the anchors of 5 and 10 (e.g., 7 is 2 more than 5 and 3 less than 10);	Unit 2 L5, L6, L7, L9 Unit 7 L2, L3 Unit 10 L2, L3
identify and describe various coins (i.e., penny, nickel, dime, quarter, \$1 coin, \$2 coin), using coin manipulatives or drawings, and state their value (e.g., the value of a penny is one cent; the value of a toonie is two dollars);	Unit 3 L5
represent money amounts to 20¢, through investigation using coin manipulatives;	Unit 3 L6

<b>Specific Expectations</b>	<b>Addison Wesley Mathematics Makes Sense Grade 1, Lessons:</b>
estimate the number of objects in a set, and check by counting (e.g. “I guessed that there were 20 cubes in the pile. I counted them and there were only 17 cubes. 17 is close to 20.”);	Unit 2 L9 Unit 7 L1, L2 Unit 10 Launch
compose and decompose numbers up to 20 in a variety of ways, using concrete materials (e.g., 7 can be decomposed using connecting cubes into 6 and 1, or 5 and 2, or 4 and 3);	Unit 2 L4, L5, L6, L7, L8, L10 Unit 4 L1, L2, L3 Unit 7 L7 Unit 10 L5
divide whole objects into parts and identify and describe, through investigation, equal-sized parts of the whole, using fractional names (e.g., halves; fourths or quarters);	Unit 9 L6
<i>Counting</i> demonstrate, using concrete materials, the concept of one-to-one correspondence between number and objects when counting;	Unit 2 L1, L2, L4, L6, L7, L8, L9 Unit 4 L1, L2 Unit 7 L1, L2 Unit 10 L2, L3
count forward by 1’s, 2’s, 5’s, and 10’s to 100, using a variety of tools and strategies (e.g., move with steps; skip count on a number line; place counters on a hundreds chart; connect cubes to show equal groups; count groups of pennies, nickels, or dimes);	Unit 7 L1, L2, L3, L4 Unit 10 L1, L2, L3
count backwards by 1’s from 20 and any number less than 20 (e.g., count backwards from 18 to 11), with and without the use of concrete materials and number lines;	Unit 2 L1, L8, with supporting TG Activity Bank  Unit 4 L5 Activity “Singing Subtraction”
count backwards from 20 by 2’s and 5’s, using a variety of tools (e.g., number lines, hundreds charts);	Unit 2 L1, with supporting TG note.
use ordinal numbers to thirty-first in meaningful contexts (e.g., identify the days of the month on a calendar);	Unit 3 L2 Building a Math Community (TG module), pp 22, 23
<i>Operational Sense</i> solve a variety of problems involving the addition and subtraction of whole numbers to 20, using concrete materials and drawings (e.g., pictures, number lines)	Unit 2 L4, L5 Unit 4 L1, L2, L3, L4, L5, L6 Unit 7 L7, L8 Unit 10 L5

<b>Specific Expectations</b>	<b><i>Addison Wesley Mathematics Makes Sense Grade 1, Lessons:</i></b>
solve problems involving the addition and subtraction of single-digit whole numbers; using a variety of mental strategies (e.g., one more than, one less than, counting on, counting back, doubles);	Unit 2 L4, L5 Unit 4 L1, L2, L3, L4, L5, L6 Unit 7 L7, L8 Unit 10 L5
add and subtract money amounts to 10¢, using coin manipulatives and drawings.	Unit 3 L6, L7

## Measurement

Overall Expectations

*By the end of Grade 1, students will:*

- estimate, measure, and describe length, area, mass, capacity, time, and temperature, using non-standard units of the same size;
- compare, describe, and order objects, using attributes measured in non-standard units.

Students will:

<b>Specific Expectations</b>	<b>Addison Wesley Mathematics Makes Sense Grade 1, Lessons:</b>
<i>Attributes, Units, and Measurement Sense</i> demonstrate an understanding of the use of non-standard units of the same size (e.g., straws, index cards) for measuring;	Unit 8 L1, L2, L3, L4, L6 Unit 11 L1, L2, L4, L5
estimate, measure (i.e., by placing non-standard units repeatedly, without overlaps or gaps), and record lengths, heights, and distances (e.g., a book is about 10 paper clips wide; a pencil is about 3 toothpicks long);	Unit 8 L1, L2, L3, L4, L6
construct, using a variety of strategies, tools for measuring lengths, heights, and distances in non-standard units (e.g., footprints on cash register tape or on connecting cubes);	Unit 8 L1, L2 (Activity Bank)
estimate, measure (i.e., by minimizing overlaps and gaps), and describe area, through investigation using non-standard units (e.g., “It took about 15 index cards to cover my desk, with only a little bit of space left over.”);	Unit 8 L6
estimate, measure, and describe the capacity and/or mass of an object, through investigation using non-standard units (e.g., “My journal has the same mass as 13 pencils.” “The juice can has the same capacity as 4 pop cans.”);	Unit 11 L1, L2, L3, L4, L5
estimate, measure, and describe the passage of time, through investigation using non-standard units (e.g., number of sleeps; number of claps; number of flips of a sand timer);	Unit 3 L2, L3
read demonstration digital and analogue clocks, and use them to identify benchmark times (e.g., times for breakfast, lunch, dinner; the start and end of school; bedtime) and to tell and write time to the hour and half hour in everyday settings;	Unit 3 L4, and TG note, with supporting BLM Unit 9 L7, and TG note, with supporting BLM
name the months of the year in order, and read the date on a calendar;	Building a Math Community (TG module), pp 22, 23

<b>Specific Expectations</b>	<b><i>Addison Wesley Mathematics Makes Sense Grade 1, Lessons:</i></b>
relate temperature to experiences of the seasons (e.g., “In winter, we can skate because it’s cold enough for there to be ice.”);	Unit 3 Launch, L1
<i>Measurement Relationships</i> compare two or three objects using measurable attributes (e.g., length, height, width, area, temperature, mass, capacity), and describe the objects using relative terms (e.g., <i>taller, heavier, faster, bigger, warmer</i> ; “If I put an eraser, a pencil, and a metre stick beside each other, I can see that the eraser is shortest and the metre stick is longest.”);	Unit 8 L1, L3, L6 Unit 11 L1, L4 Unit 3 L1
compare and order objects by their linear measurements, using the same non-standard unit;	Unit 8 L1, L3, L5
use the metre as a benchmark for measuring length, and compare the metre with non-standard units;	Unit 8 L4 with supporting TG note and Activity Bank
describe, through investigation using concrete materials, the relationship between the size of a unit and the number of units needed to measure length.	Unit 8 L4

## Geometry and Spatial Sense

Overall Expectations

*By the end of Grade 1, students will:*

- identify common two-dimensional shapes and three-dimensional figures and sort and classify them by their attributes;\*
- compose and decompose common two-dimensional shapes and three-dimensional figures;
- describe the relative locations of objects using positional language.

Students will:

<b>Specific Expectations</b>	<b>Addison Wesley Mathematics Makes Sense Grade 1, Lessons:</b>
<i>Geometric Properties</i> identify and describe common two-dimensional shapes (e.g., circles, triangles, rectangles, squares) and sort and classify them by their attributes (e.g., colour; size; texture; number of sides), using concrete materials and pictorial representations (e.g., “I put all the triangles in one group. Some are long and skinny, and some are short and fat, but they all have three sides.”);	Unit 1 L1 Unit 9 L1, L2, L3
trace and identify the two-dimensional faces of three-dimensional figures, using concrete models (e.g., “I can see squares on the cube.”);	Unit 6 L3 Activity “Painted Faces”
identify and describe common three-dimensional figures (e.g., cubes, cones, cylinders, spheres, rectangular prisms) and sort and classify them by their attributes (e.g., colour; size; texture; number and shape of faces), using concrete materials and pictorial representations (e.g., “I put the cones and the cylinders in the same group because they all have circles on them.”);	Unit 6 L1, L2
describe similarities and differences between an everyday object and a three-dimensional figure (e.g., “A water bottle looks like a cylinder, except the bottle gets thinner at the top.”);	Unit 6 L1, L2
locate shapes in the environment that have symmetry, and describe the symmetry;	Unit 9 L5

\* For the purposes of student learning in Grade 1, “attributes” refers to the various characteristics of two-dimensional shapes and three-dimensional figures, including geometric properties. (See glossary entries for “attribute” and “property (geometric).” Students learn to distinguish attributes that are geometric properties from attributes that are not geometric properties in Grade 2.

<b>Specific Expectations</b>	<b><i>Addison Wesley Mathematics Makes Sense Grade 1, Lessons:</i></b>
<i>Geometric Relationships</i> compose patterns, pictures, and designs, using common two-dimensional shapes;	Unit 6 L3
identify and describe shapes within other shapes (e.g., shapes within a geometric design);	Unit 6 L3, L4 Unit 9 Launch, L1, L4
build three-dimensional structures using concrete materials, and describe the two-dimensional shapes the structures contain;	Unit 6 L1, L2
cover outline puzzles with two-dimensional shapes (e.g., pattern blocks, tangrams);	Unit 9 L4, Student Book p. 211
<i>Location and Movement</i> describe the relative locations of objects or people using positional language (e.g., <i>over, under, above, below, in front of, behind, inside, outside, beside, between, along</i> );	Unit 6 L4
describe the relative locations of objects on concrete maps created in the classroom;	Unit 6 L4, with supporting Activity Bank suggestion
create symmetrical designs and pictures, using concrete materials (e.g., pattern blocks, connecting cubes, paper for folding), and describe the relative locations of the parts.	Unit 9 L5 Unit 9 Centres

## Patterning and Algebra

Overall Expectations

*By the end of Grade 1, students will:*

- identify, describe, extend, and create repeating patterns;
- demonstrate an understanding of the concept of equality, using concrete materials and addition and subtraction to 10.

Students will:

<b>Specific Expectations</b>	<b>Addison Wesley Mathematics Makes Sense Grade 1, Lessons:</b>
<i>Patterns and Relationships</i> identify, describe, and extend, through investigation, geometric repeating patterns involving one attribute (e.g., colour size, shape, thickness, orientation);	Unit 1 L3, L4
identify and extend, through investigation, numeric repeating patterns (e.g., 1, 2, 3, 1, 2, 3, 1, 2, 3, ...);	Unit 1 L3, with supporting TG note
describe numeric repeating patterns in a hundreds chart;	Unit 10 L1
identify a rule for a repeating pattern (e.g., “We’re lining up boy, girl, boy, girl, boy, girl.”);	Unit 1 L3, L4
create a repeating pattern involving one attribute (e.g., colour, size, shape, sound);	Unit 1 L4
represent a given repeating pattern in a variety of ways (e.g., pictures, actions, colours, sounds, numbers, letters);	Unit 1 L4, with supporting TG note and BLM
<i>Expressions and Equality</i> create a set in which the number of objects is greater than, less than, or equal to the number of objects in a given set;	Unit 2 L1, and Unit 7 L2, with supporting TG notes
demonstrate examples of equality, through investigation, using a “balance” model;	Unit 11 L4, with supporting Activity Bank suggestion
determine, through investigation using a “balance” model and whole numbers to 10, the number of identical objects that must be added or subtracted to establish equality.	Unit 11 L4, with supporting Activity Bank suggestion

## Data Management and Probability

Overall Expectations

*By the end of Grade 1, students will:*

- collect and organize categorical primary data and display the data using concrete graphs and pictographs, without regard to the order of labels on the horizontal axis;
- read and describe primary data presented in concrete graphs and pictographs;
- describe the likelihood that everyday events will happen.

Students will:

<b>Specific Expectations</b>	<b>Addison Wesley Mathematics Makes Sense Grade 1, Lessons:</b>
<i>Collection and Organization of Data</i> demonstrate an ability to organize objects into categories by sorting and classifying objects using one attribute (e.g., colour, size), and by describing informal sorting experiences (e.g., helping to put away groceries);	Unit 1 L1, L2 Unit 6 L2 Unit 9 L1, L2
collect and organize primary data (e.g., data collected by the class) that is categorical (i.e., that can be organized into categories based on qualities such as colour or hobby), and display the data using one-to-one correspondence, prepared templates of concrete graphs and pictographs (with titles and labels), and a variety of recording methods (e.g., arranging objects, placing stickers, drawing pictures, making tally marks);	Unit 5 L1, L2, L3
<i>Data Relationships</i> read primary data presented in concrete graphs and pictographs, and describe the data using comparative language (e.g., more students chose summer than winter as their single favourite season);	Unit 5 L1, L2
pose and answer questions about collected data;	Unit 5 L4
<i>Probability</i> describe the likelihood that everyday events will occur, using mathematical language (i.e., <i>impossible, unlikely, less likely, more likely, certain</i> ) (e.g., “It’s unlikely that I will win the contest shown on the cereal box.”).	Unit 5 L5